

Message

From: Persad, Amanda [Persad.Amanda@epa.gov]
Sent: 6/29/2021 3:22:31 PM
To: Vulimiri, Suryanarayana [Vulimiri.Sury@epa.gov]; Kraft, Andrew [Kraft.Andrew@epa.gov]
CC: Glenn, Barbara [Glenn.Barbara@epa.gov]
Subject: RE: Next steps for SEM work?
Attachments: FA SEM literature inventory reference list 28JUN21.xlsx

Good news:

The 5 included references from the Respiratory Tract Pathology Animal are already in the FA SEM Lit Inventory project.

Action item:

These 5 studies now have to be extracted for the Respiratory Tract Pathology Animal outcome. To make this process straightforward, a new row can be added for respiratory tract pathology and then the previously entered bits can be pulled together.

Here are the 5 references and what they have already been entered as:

4164924 – Mechanistic Inflammation
5936578 – Mechanistic Inflammation
5936714 – Mechanistic Inflammation
6087875 – Mechanistic RT Cancer
7311681 – Mechanistic Inflammation

Attached is the master list.

From: Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Sent: Tuesday, June 29, 2021 10:55 AM
To: Kraft, Andrew <Kraft.Andrew@epa.gov>; Persad, Amanda <Persad.Amanda@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

Done.

From: Kraft, Andrew <Kraft.Andrew@epa.gov>
Sent: Tuesday, June 29, 2021 10:14 AM
To: Persad, Amanda <Persad.Amanda@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

Sury, can you please review these? I think there's probably only 15 or so.

From: Persad, Amanda <Persad.Amanda@epa.gov>
Sent: Tuesday, June 29, 2021 8:52 AM
To: Kraft, Andrew <Kraft.Andrew@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

That's because you've reviewed them already. You're off the hook. It's awaiting a 2nd reviewer.

From: Kraft, Andrew <Kraft.Andrew@epa.gov>
Sent: Tuesday, June 29, 2021 8:49 AM

To: Persad, Amanda <Persad.Amanda@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

There are no studies visible to me in resp tract pathology.

From: Persad, Amanda <Persad.Amanda@epa.gov>
Sent: Tuesday, June 29, 2021 8:48 AM
To: Kraft, Andrew <Kraft.Andrew@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

This morning, I added 17 more studies from the Asthma and Mechanistic Inflammation Projects to the FA SEM Lit Inventory project for extraction.

There are still unreviewed studies in the RT Pathology Animal project, so I haven't touched that project.

My next step would be to sweep all the projects and make sure we capture all the references that were flagged during screening for other projects and upload that batch for extraction.

From: Kraft, Andrew <Kraft.Andrew@epa.gov>
Sent: Monday, June 28, 2021 4:51 PM
To: Persad, Amanda <Persad.Amanda@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

Other than 3 conflicts in asthma, it looks like all the projects are now fully screened and conflicts resolved. The studies tagged as potentially relevant to other projects can now be checked against the studies already screened and added for screening within those projects as appropriate.

From: Persad, Amanda <Persad.Amanda@epa.gov>
Sent: Monday, June 28, 2021 2:21 PM
To: Kraft, Andrew <Kraft.Andrew@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>
Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>
Subject: RE: Next steps for SEM work?

Here's where we stand.

Before I went on vacation I added 6 references to be extracted (FA SEM Lit Inventory) from the following projects (LHP Cancer, RT Cancer Animal, Nervous System, Mech – RT Cancer) @Vulimiri, Suryanarayana we can finalize HAWC Trees for these 4 projects. I haven't checked on the extraction status of these 6 to see if their tables can be finalized.

Today, I added 13 more references for extraction (FA SEM Lit Inventory) from the following projects:

- Cancer human
- Pulmonary function
- Repro Dev
- RT Pathology Human

No studies needed to be added from RT Cancer and Sensory Irritation. @Vulimiri, Suryanarayana we can finalize the HAWC trees for these two projects.

The following are still in the screening phase so I wont add studies from these until screening is completed.

- Asthma Immune

- Mechanistic Inflammation
- RT Pathology Animal

Notes for extraction:

- **4471271** previously extracted for Mechanistic LHP Cancer and Mechanistic RT Cancer now needs to be extracted for RT Cancer Human
- **7008482** previously extracted for Mechanistic Inflammation now needs to be extracted for Pulmonary Function
- **7325346** previously extracted for Sensory Irritation now needs to be extracted for Pulmonary Function

Here's what needs to be extracted for each of the following references

Refid	Bibliography	Project	ST
2955954	RefID 2955954 Pira, E., Romano, C., Verga, F., La Vecchia, C.. Mortality from lymphohematopoietic neoplasms and other causes in a cohort of laminated plastic workers exposed to formaldehyde. Cancer Causes and Control. 2014. 25:1343-1349 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/2955954	Cancer Human	HT
2965827	RefID 2965827 Checkoway, H., Dell, L. D., Boffetta, P., Gallagher, A. E., Crawford, L., Lees, P. S., Mundt, K. A.. Formaldehyde Exposure and Mortality Risks From Acute Myeloid Leukemia and Other Lymphohematopoietic Malignancies in the US National Cancer Institute Cohort Study of Workers in Formaldehyde Industries. Journal of Occupational and Environmental Medicine. 2015. 57:785-794 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/2965827	Cancer Human	HT
3129860	RefID 3129860 Marsh, G. M., Morfeld, P., Zimmerman, S. D., Liu, Y., Balmert, L. C.. An updated re-analysis of the mortality risk from nasopharyngeal cancer in the National Cancer Institute formaldehyde worker cohort study. Journal of Occupational Medicine and Toxicology. 2016. 11:8 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/3129860	Cancer Human	HT
3421098	RefID 3421098 Wang, H., Li, H.,eC, Lv, M., Zhou, D., Bai, L., Du, L., Xue, X.,ia, Lin, P.,u, Qiu, S.. Associations between occupation exposure to Formaldehyde and semen quality, a primary study. Scientific Reports. 2015. 5:15874 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/3421098	Repro Dev	HT
3602856	RefID 3602856 Xie, S. H., Yu, I. T., Tse, L. A., Au, J. S., Lau, J. S.. Occupational risk factors for nasopharyngeal carcinoma in Hong Kong Chinese: a case-referent study. International Archives of Occupational and Environmental Health. 2017. 90:443-449 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/3602856	Cancer Human	HT
3863942	RefID 3863942 Zarei, F., Rezazadeh Azari, M., Salehpour, S., Khodakarim, S., Omid, L., Tavakol, E.. Respiratory effects of simultaneous exposure to respirable crystalline silica dust, formaldehyde, and triethylamine of a group of foundry workers. Journal of Research in Health Sciences. 2017. 17:E1-E6 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/3863942	Pulmonary Function	HT
3866863	RefID 3866863 Amiri, A., Turner-Henson, A.. The roles of formaldehyde exposure and oxidative stress in fetal growth in the second trimester. Journal of Obstetric, Gynecologic, and Neonatal Nursing. 2017. 46:51-62 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/3866863	Repro Dev	HT
4071561	RefID 4071561 Neghab, M., Delikhoon, M., Norouzian Baghani, A., Hassanzadeh, J.. Exposure to Cooking Fumes and Acute Reversible Decrement in Lung Functional Capacity. International Journal of Occupational and Environmental Medicine. 2017. 8:207-216 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4071561	Pulmonary Function	HT

4140885	RefID 4140885 Jiang, W. C., Wu, S. Y., Ke, Y. B.. [Association of exposure to environmental chemicals with risk of childhood acute lymphocytic leukemia]. Zhonghua Yufang Yixue Zazhi / Chinese Journal of Preventive Medicine. 2016. 50:893-899 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4140885	Cancer Human	He
4142353	RefID 4142353 Chang, M., Park, H., Ha, M., Hong, Y. C., Lim, Y. H., Kim, Y., Kim, Y. J., Lee, D., Ha, E. H.. The effect of prenatal TVOC exposure on birth and infantile weight: the Mothers and Children's Environmental Health study. Pediatric Research. 2017. 82:423-428 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4142353	Repro Dev	He
4442480	RefID 4442480 Sernia, S., Di Folco, F., Altrudo, P., Sbriccoli, B., Sestili, C., Colamesta, V., Del Buono, S., Michetti, A., Ortis, M., Dawodu, A., Villari, P., La Torre, G.. [Risk of nasopharyngeal cancer, Leukemia and other tumors in a cohort of employees and students potentially exposed to (FA) formaldehyde in University laboratories]. La Clinica Terapeutica. 2016. 167:43-47 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4442480	Cancer Human	He
4453751	RefID 4453751 Khalil, S. R., Awad, A., Ali, S. A.. Melamine and/or formaldehyde exposures affect steroidogenesis via alteration of StAR protein and testosterone synthetic enzyme expression in male mice. Environmental Toxicology and Pharmacology. 2017. 50:136-144 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4453751	Repro Dev	Ar
4455299	RefID 4455299 Zang, Z. J., Fang, Y. Q., Ji, S. Y., Gao, Y., Zhu, Y. Q., Xia, T. T., Jiang, M. H., Zhang, Y. N.. Formaldehyde Inhibits Sexual Behavior and Expression of Steroidogenic Enzymes in the Testes of Mice. Journal of Sexual Medicine. 2017. 14:1297-1306 https://heronet.epa.gov/heronet/index.cfm/reference/download/reference_id/4455299	Repro Dev	Ar

From: Kraft, Andrew <Kraft.Andrew@epa.gov>

Sent: Monday, June 28, 2021 1:36 PM

To: Persad, Amanda <Persad.Amanda@epa.gov>

Cc: Glenn, Barbara <Glenn.Barbara@epa.gov>; Vulimiri, Suryanarayana <Vulimiri.Sury@epa.gov>

Subject: Next steps for SEM work?

Hi Amanda,

Can you please let me know the plan for next steps in compiling? Other than finishing screening (which, except for asthma, will likely be finished today—and I don't think we need to wait for Tom to finish to start moving to next steps), what do we need to do? I presume you will check any studies flagged to other projects against the studies already screened in the identified projects and let us know any additional screening that is necessary before extraction. But, can't we start generating draft HAWC trees and data tables for those where the impactfulness decisions and extractions are completed and no new studies need to be extracted (since the animal studies are all screened, maybe we could start with those extractions and trees/tables generation)?

Based on datarama, from what is visible to me the following projects are done screening (pending the addition of any studies to these searches that were identified from other projects):

- Animal- LHP cancer
- Animal- URT cancer
- Animal- Respiratory tract pathology
- Human- cancer
- Human- pulmonary function
- Human- sensory irritation
- Nervous system (human and animal and mechanistic)

- Repro/Dev (human and animal and mechanistic)
- Mechanistic- URT cancer
- Exposure (meh, maybe hold on this one until we decide what exactly we're doing)

Projects with some screening remaining:

- Asthma/immune (waiting on Tom's reviews)
- Mechanistic- inflammation/immune (Sury is working on second reviews now, so perhaps ready today)
- Mechanistic- LHP cancer (Sury is working on second reviews now, so perhaps ready today)

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